WORK PROCESSES AND RELATED INSTRUCTION OUTLINE
VETERINARY AND LABORATORY ANIMAL TECHNICIAN
O*NET/SOC CODE: 31-9096.00 RAIS CODE: TBD

Occupational Description: Provide quality animal care and transportation through the effective use of facilities, environment controls and animal husbandry techniques. Performs quality animal husbandry and health care procedures on veterinary patients and laboratory animals. Assist in the operation and management of the Veterinary and Laboratory Research Animal Facilities. Is aware of and follows safety procedures applicable to the health care of animals and experiments with research animals

Hazards: OSHA Category 1: Tasks that involve exposure to blood, body fluids, tissues, and other potentially infectious materials. Is subject to animal allergens and bio-hazard chemicals.

Term: Competency based (2,000 Minimum Hours)

On-The-Job Learning: The following competency areas have been identified to lend focus and direction to the professional development of the Animal Research Technician I. The apprentice will attain a basic level of mastery across all competency areas before receiving certification. Basic mastery will be represented by the apprentices being able to articulate their learning with each competency area and demonstrate that they have successfully integrated all the competencies in their work. The order in which the apprentices learn will be determine by the flow of work on-the-job and will not necessarily be in the order listed. Times allotted to these various processes are estimated for the average apprentice to learn each phase of the occupation and demonstrate competency. They are intended only as a guide to indicate the quality of training being provided and the ability of the apprentice to absorb this training in an average amount of time.

A. Work Process Schedule

COMPETENCIES	OJL Hours
1. Knowledge of basic principle and technical skills	**500**
• Required to provide quality animal husbandry and health care in conventionally housed animals.	
• Sanitizes cages and accessories according to SOP	
• Proper handling and restraining techniques	
• Feeds, waters and houses for animal models	
• Appropriate transportation techniques for different animal models	
2. Knowledge of basic principles and technical skills	**600**
• Required to provide quality animal husbandry and health care in specially housed animal models, including bio-hazard and immunocompromised animal models.	
• Observes SOP in preparing caging, accessories, water and food for animals with special healthcare needs	
• Appropriate transportation techniques for different animal models	

3. Observes Standard Operating Procedures (SOP) for performance of protocols and management of research animals	**450**
• Prepare and administer special diets according to SOP protocol.	
• Observe, identify, and report animals with signs of pain or unhealthiness.	
• Prepare and administer medications according to SOP	
• Weigh animals in a consistent manner according to protocol.	
• Measure and/or collect experimental and animal data (measure tumors, count/record behavior points)	
• Accurately calculate medication dosing.	
• Monitor and manage animals' vital signs during surgery and maintain anesthesia to the appropriate surgical plane.	
• Follow pre and post-operative procedures as per protocol.	
• Monitor and document animals' vital signs during post-operative procedures as per protocol.	
• Follow aseptic technique when assisting in animal surgeries.	
• Knowledge of basic animal breeding colony management.	
4. Demonstrate proper use and maintenance of equipment	**200**
• Performs routine cleaning and calibration of equipment	
○ Autoclave	
○ Cage washer	
○ Bottle filler	
○ Scales & Balances	
○ Laminar Flow Biological Hoods	
5. Documentation, Communication and Problem solving	**150**
• Complete daily and weekly animal census with 99% accuracy,	
• File documents in appropriate locations	
• Correctly and consistently input animal health data into electronic form	

6. Observe Safe and Compliant Practices	**40**
• Dispose of specimens and laboratory waste in accordance with SOP, regulatory agencies and protocol requirements.	
• Demonstrate consistent and appropriate hand-washing techniques.	
• Use of protective equipment, chemical showers, eye wash stations and fire extinguishers.	
• Demonstrate knowledge of Animal facility's chemical hygiene plan and location of MSDS sheets.	
• Demonstrate knowledge of handling procedures and precautions for chemical, biological and radiological materials.	
7. Demonstrate ethical and responsible conduct in all Animal Research Laboratory related activities	**60**
TOTAL HOURS	**2,000**

RELATED INSTRUCTION OUTLINE
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Related instruction courses supplement the on-the-job learning and lists courses that provide technical ability. The following are courses suggested to be completed during the term of the apprenticeship.

Related Instruction (RI) Courses	RI Hours
A. Anatomy and Physiology Introduction to the systematic study of anatomy and physiology of animals with emphasis on functional relationships and interdependence of systems.	**48**
B. Laboratory Animal Clinical Management Survey of common management practices in veterinary facilities and care of laboratory animals in a clinical setting. Topics including but not limited to; aseptic techniques, anesthesia and analgesia, Regulations/Compliance, safety, genetics/breeding colonies, diseases in laboratory animals, diagnostic techniques, immunology, and pharmacology	**66**
C. Technical Mathematics II Review of mathematical functions including fractions, decimals, measurement, scientific notation, percentages, proportions, perimeters, areas, volumes of geometric figures and problem solving techniques	**16**
D. Communications Development of oral, written communication skills utilized in the workplace. Technical writing for SOP, research protocol, and documentation. Review of skills, as well as potential barriers to effective "listening". Basic principles and techniques for communication with non-native English speakers.	**16**
TOTAL HOURS	**146**